

Rediscovery of the Madagascar Pochard *Aythya innotata* in northern Madagascar

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Redécouverte du Fuligule de Madagascar *Aythya innotata* en Madagascar du nord. Le Fuligule de Madagascar *Aythya innotata*, espèce gravement menacée d'extinction, a été redécouvert en novembre 2006 sur un petit lac peu profond du nord du pays: jusqu'à cinq mâles, quatre femelles et quatre jeunes d'environ deux semaines ont été observés. Lors d'une deuxième visite au site en décembre, environ 20 individus ont été notés et cinq ont été trouvés sur un autre lac, à 3 km du premier. En janvier 2007, 16 oiseaux, dont deux jeunes, ont été comptés. Le nombre total de Fuligules de Madagascar pour les trois visites est estimé à 20–25 individus. Le site hébergeait également environ 60 Grèbes malgaches *Tachybaptus pelzenii*, 21 Crabiers blancs *Ardeola idae*, 11 Canards de Meller *Anas melleri* et trois Râles de Madagascar *Rallus madagascariensis*.

Summary. The Critically Endangered Madagascar Pochard *Aythya innotata* was rediscovered in November 2006 on a small shallow lake in northern Madagascar, where up to five males, four females and four young *c.* 2 weeks old were observed. When the site was revisited in December, *c.* 20 individuals were noted and five were found at another lake, 3 km away. In January 2007, a total of 16 birds, including two young, was counted. The total number of Madagascar Pochards during the three visits is estimated at 20–25 individuals. Other threatened waterbirds present at the site included *c.* 60 Madagascar Little Grebes *Tachybaptus pelzenii*, 21 Madagascar Pond Herons *Ardeola idae*, 11 Meller's Ducks *Anas melleri* and three Madagascar Rails *Rallus madagascariensis*.

The Critically Endangered Madagascar Pochard *Aythya innotata* is the rarest of Madagascar's endemic birds and was recently classified as one of just 15 species in the world that is Possibly Extinct (BirdLife International 2004,

Butchart *et al.* 2006, Young & Kear 2006). Initially known only from Lake Alaotra, on the central plateau of north-eastern Madagascar, but subsequently recorded elsewhere (Collar & Stuart 1985), it was considered relatively common at



Figures 1–3. Madagascar Pochards *Aythya innotata*, northern Madagascar, 2 November 2006: a pair with two young, an adult male, and a pair (Lily-Arison René de Roland/The Peregrine Fund)

Fuligules de Madagascar *Aythya innotata*, Madagascar du nord, 2 novembre 2006: un couple avec deux jeunes, un mâle adulte, et un couple (Lily-Arison René de Roland/The Peregrine Fund)

Alaotra in the 1930s (Delacour 1932, Rand 1936, Young & Smith 1989, Young & Kear 2006).

The decline of the Madagascar Pochard probably commenced in the 1940s and 1950s, and has been linked with the degradation of lake and marshland habitat by introduced exotic plant and fish species, conversion to rice paddies, and burning (Young & Smith 1989). By the 1960s sightings at Lake Alaotra had become rare and the last observation of more than one bird was at Lake Ambohibao in 1970 (Salvan 1970, Wilmé 1994) and the last confirmed record in 1991, when a lone male was captured by local wildfowlers at Lake Alaotra and subsequently transferred to Antananarivo, where it was held in the Zoological and Botanical Gardens until its death a year later (Wilmé 1993). Despite intensive searches and a publicity campaign in the 1990s, the species was not found again (Wilmé 1994, Pidgeon 1996, BirdLife International 2004).

In November 2006, L-ARdR and TSS were conducting bird surveys in a remote area of northern Madagascar with many small lakes and habitats ranging from grassland to tropical forest. On 1 November, an unusual duck with bright white eyes was found in the middle of a c.28 ha lake, in the company of White-faced Whistling Ducks *Dendrocygna viduata*, Red-billed Teal *Anas erythrorhynchos*, Meller's Ducks *A. melleri* and Madagascar Little Grebes *Tachybaptus pelizenii*. It was observed from 14.00 to 17.45 h using binoculars and a spotting scope, and the observers concluded that the bird was a Madagascar Pochard, based on it being a brown diving duck with a dark head, white irides, white on the flanks and a white wingbar in flight. During the following two days, 13 individuals were observed and photographed, comprising five males, four females and four young of c.2 weeks old, which always kept close to an adult female. Adult males had dark brown plumage which became whitish on the belly and undertail-coverts, gleaming white irides and a lead grey bill with a black nail. Adult females were duller with dark brown irides; bill and nail colours were the same. Both sexes exhibited a conspicuous white wingbar in flight.

Pochards were always encountered in twos (male–male or male–female) or trios (one male with two females), and all such 'groups' maintained close contact. They appeared to prefer the

centre of the lake to rest and roost, and when moved towards the edges due to wind and wave action would return swiftly to the middle of the lake.

The pochards dived frequently, remaining underwater for 1–2 minutes. The four young also dived, but stayed underwater for shorter durations. During the two and a half days of observations, the pochards were seen to fly from one side of the lake to the other twice, and on two occasions two individuals flew together for c.4 minutes c.10 m above the lake. The birds were silent and showed no signs of competition with, or aggression towards, the other waterbirds present. On three occasions, the female with young closely consorted with Meller's Ducks and Madagascar Little Grebes, although this apparent 'association' was quite plausibly coincidental.

This lake and the surrounding area is part of the central high plateau ecoregion. The lake is in a volcanic depression, is small and surrounded by tropical forest in the bowl, and grassland and forest on the rim. There is a narrow band (c.15 metres in width) of reeds (*Phragmites*) bordering the lake and the nearby forest.

During the first week of December 2006, L-ARdR and MPHR revisited the lake with Glyn Young from the Durrell Wildlife Conservation Trust and observed at least 15 adults and nine young. At another lake, 3 km from the first, five adults were found, but it is unclear whether or not these had already been counted at the first lake. On 19–20 January 2007, L-ARdR and MPHR, accompanied by RT, recorded 16 adult pochards and two young c.10 days old. On the basis of the three visits, we estimate the currently known population of Madagascar Pochards at c.20–25 individuals. Impressive numbers of other threatened waterbirds were present at the site, including c.60 Madagascar Little Grebes (Vulnerable), 21 Madagascar Pond Herons *Ardeola ideea* (Endangered), 11 Meller's Ducks (Endangered) and three Madagascar Rails *Rallus madagascariensis* (Vulnerable).

Discussion

Madagascar Pochard closely resembles Ferruginous Duck *Aythya nyroca* and Hardhead *A. australis*. All are small brown diving ducks that are sexually dimorphic in eye colour. Australian

Hardhead is restricted to the Australian region, whereas Ferruginous Duck breeds in the Palearctic and winters to the south including Africa, with a recent record from Seychelles (Skerrett 1999). Although there was formerly a breeding population of Ferruginous Ducks in Africa, this no longer exists (Brown *et al.* 1982), and no other *Aythya* species is known to breed close to Madagascar.

Little is known concerning the life history of the Madagascar Pochard, a diving duck that prefers shallow and marshy lakes with small pools surrounded by emergent vegetation (Young & Smith 1989). Historically, it was known principally from the Lake Alaotra region, but this well-surveyed area has yielded only one sighting in recent decades, suggesting that human persecution and habitat modification have been the main causes of its extirpation there. The lakes where the pochard has been rediscovered are surrounded by pristine tropical forest and grassland with no evidence of human disturbance or degradation. The lack of disturbance is suspected to be the main reason for the pochard's survival in this region. The population has probably been at this site for many years, given the lack of avifaunal (and other faunal) surveys of this region, with all previous searches for the pochard concentrating on the environs of Lake Alaotra.

Lake Alaotra was considered prime pochard habitat, due to the presence of abundant emergent vegetation and numerous quiet pools (Young & Kear 2006). The new site lacks emergent vegetation and fish. The site comprises four shallow lakes, with the main lake varying between 1.5 to 3.0 m deep, and supporting a benthic flora and fauna suitable for pochards. There is no competition from exotic fish (*Tilapia*) as at Lake Alaotra, and there is no hunting. Possibly, similar lakes in the region and between the new site and Lake Alaotra have been modified by man, making them unsuitable habitat for breeding pochards, or have yet to be surveyed for pochards, or pochards have been extirpated from them. Another reason that pochards have persisted at the rediscovery site is perhaps the reeds and marshy vegetation bordering the lake, which presumably constitutes important nesting habitat (although no wild nest has been described, other *Aythya* are known to nest in such areas), and is absent from two of the nearby

lakes. The site of the rediscovery is some distance from Alaotra, but is close to a former wetland basin like Lake Alaotra and those elsewhere on the Madagascan Central Plateau. We therefore suggest that future surveys to find the pochards should include expanses of former high-plateau wetlands.

Acknowledgements

We dedicate this paper to William Burnham for his devoted support of The Peregrine Fund, particularly of the Madagascar Program. We also thank the anonymous reviewers for their comments and help in improving this paper.

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Received 20 December 2006; revision accepted 22 May 2007.

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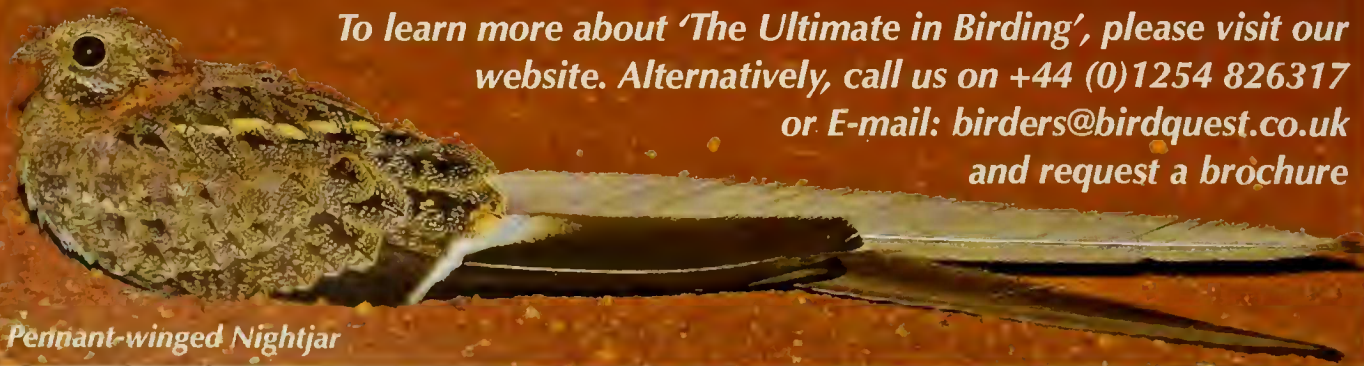
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